



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,229	01/31/2005	Jonathan Hughes	IA/3-2233/PCT	8035

324 7590 03/18/2008

JoAnn Villamizar  
Ciba Corporation/Patent Department  
540 White Plains Road  
P.O. Box 2005  
Tarrytown, NY 10591

EXAMINER
----------

HRUSKOCI, PETER A

ART UNIT	PAPER NUMBER
----------	--------------

1797

MAIL DATE	DELIVERY MODE
-----------	---------------

03/18/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,229	<b>Applicant(s)</b> HUGHES, JONATHAN	
	<b>Examiner</b> Peter A. Hruskoci	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/29/05</u> .   | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 1797

The disclosure is objected to because of the following informalities: On page 1 “ethanol..”, on page 2 “typically”, “derivativeS”, “poly-alcohol.”, “6.”, on page 3 “galacTose,”, “threo-pentulUse”, and “particulatesand”, on page 11 “precipated” and “pH.filtrate”, and on page 15 “80oC” are erroneous.

Appropriate correction is required.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is considered incomplete because it is essential that the instant process include a step for adding the flocculating agent in an effective amount to flocculate the solid biological matter, and a step for separating the flocculated solid biological matter from the aqueous phase. Claim 4 is considered incomplete because it is essential that the instant process include a step for adding the flocculating agent in an effective amount to flocculate the solid matter. Claims 2, 3, and 5-11 depend from the above claims. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by RU 2077594 Vyglazov et al.. It is submitted that Vyglazov et al. disclose (see Abstract) a process for separating an aqueous mixture including solid matter resulting from acid hydrolysis of a naturally occurring carbohydrate substrate or vegetable material as recited in the instant claims.

Art Unit: 1797

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Brink 4,384,897. It is submitted that Brink disclose (see col. 5 line 25 through col. 10 line 63) a process for separating an aqueous mixture including solid matter resulting from acid hydrolysis of a naturally occurring carbohydrate substrate, and a process for producing a fermentation product as recited in the instant claims, respectively.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over RU 2077594 Vyglazov et al. as above, and further in view of Moffett 6,132,625. The claims differ from Vyglazov et al. as applied above by reciting that the flocculating agent includes charged microparticulate material. Moffett disclose (see col. 3 line 3 through col. 6 line 39) that it is known in the art to add a flocculating agents and anionic microgels, to aid in flocculating biosolids present in aqueous streams including sugars and carbohydrates. It would have been obvious to one skilled in the art to modify the process of Vyglazov et al. by addition of the recited microparticulate material in view of the teachings of Moffett, to aid in separating solids from the aqueous liquid phase.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brink as above, and further in view of Foody et al. 6,090,595. The claim differs from Brink as applied above by reciting that the solid matter is subjected to a specific washing cycle. Foody et al. disclose (see col. 2 lines 33-46) that it is known in the art to wash separated or filtered solids from acid hydrolysis of cellulose, to aid in recovering glucose from the

Art Unit: 1797

solids. It would have been obvious to one skilled in the art to modify Brink as applied above, by utilizing the recited washing cycle in view of the teachings of Foody et al., to aid in recovering sugars or glucose from the solids.

Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brink as above, and further in view of Moffett 6,132,625. The claims differ from Brink by reciting that the flocculating agent includes specific polymers or charged microparticulate material. Moffett disclose (see col. 3 line 3 through col. 6 line 39) that it is known in the art to add a flocculating agents including polymers and anionic microgels, to aid in flocculating biosolids present in aqueous streams including sugars and carbohydrates. It would have been obvious to one skilled in the art to modify the process of Brink by addition of the recited polymers and microparticulate material in view of the teachings of Moffett, to aid in separating solids from the aqueous liquid phase.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1797

Claims 1-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/523,230 or claims 1-22 of copending Application No. 10/523,302. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process steps recited in the instant claims appear to be fully encompassed by the claims of the copending applications.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter A. Hruskoci/  
Primary Examiner  
Art Unit 1797

3/11/08